R E P O R T R E S U M E S

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WHAT'S HAPPENING TO THE CAMPUS. A BRIEF REVIEW OF MANY INDIVIDUALS' OBSERVATION ON HOW PHYSICAL FACILITIES FOR HIGHER EDUCATION ARE CHANGING IN RESPONSE TO NEW NEEDS.

BY- BRUBAKER, CHARLES WILLIAM
PERKINS AND WILL, ARCHITECTS, CHICAGO, ILL.

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TRENDS IN CAMPUS PLANNING ARE DEVELOPED IN TERMS OF CHANGING EDUCATIONAL METHODS AND SOCIAL DEMANDS. MAJOR TOPICS COVERED ARE--(1) RE-EVALUATING THE NATURE OF LEARNING, (2) THE EFFECT OF TECHNOLOGY, (3) THE CAMPUS AS A COMMUNITY CULTURAL-EDUCATIONAL CENTER, (4) THE COLLEGE AND THE URBAN CRISIS, (5) THE MULTI-LOCATION COLLEGE, AND (6) EDUCATIONAL BUILDING SYSTEMS. WITHIN THESE CONTEXTS, DESIGN RECOMMENDATIONS AND SUGGESTIONS ARE OUTLINED, AND GRAPHIC EXAMPLES ARE PROVIDED. (MM)

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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CHARLES WILLIAM BRUBAKER, ARCHITECT
THE PERKINS & WILL PARTNERSHIP
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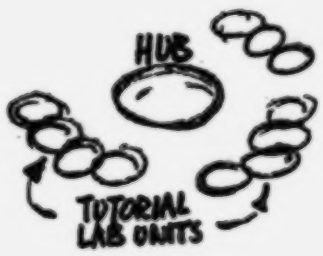
THE NATURE OF LEARNING— IS BEING RE-EVALUATED

How does the individual learn?
... an ancient question
demands new answers today.

* *The classroom concept, hovering around groups-of-thirty-students, ...*
* *The rigid scheduling, insisting equal time for all, regardless of ability ...*
* *Departmentalization of "subject matter" into isolated territories ...*
* *Grades; degrees; separation from community, industry, technology ...*

– all are being challenged by
new research, experiments, innovative programs.

For example: *Orchard Ridge Campus,*
Oakland Community College, Michigan
is based on a tutorial system of learning
which frees each student from the rigid demands
of the lock-step classroom system.



We have "the responsibility of
dispensing HOPE in the form of
information, knowledge and skill"
– Jack Tirrell, Pres.
Oakland Community College

EDUCATION CONTINUES TO BE AFFECTED BY TECHNOLOGY ... the new media, the computer, transportation, etc.

... but facilities (the campus form, and buildings) have seldom been designed in response to these new influences.

Television, dial access systems, computer assisted instruction and other electronic media should, theoretically, diminish the need to bring tens of thousands of students to a single location ... . but we continue to plan huge institutions.

Transportation systems make it possible to bring limitless numbers of students to one campus — but, if we wished, the transportation systems could disperse those same students.
(The new expressway is a two-way road!)

"The world is becoming a little round schoolhouse."
-McLuhan

Scientists predict: in the next century
... we will have direct links between the brain and the computer...
... education will be possible by direct recording on the brain. -Harold Gores

IN RECENT YEARS -

ANALYSIS { GATHERING DATA,
SEPARATION INTO PARTS,
EXAMINATION } HAS BEEN EMPHASIZED.

THE NEED NOW:

SYNTHESIS { COMPOSITION,
COMBINING TO FORM A WHOLE,
INTENT, = DESIGN.

In recent years, we have been enchanted by the computer and its boundless capacity to store data ...

... social, economic, political, technical, scientific ...

.. but we are not yet skilled in using the data ...

.. we have not yet skillfully used the computer as a creative design tool.

" *Today functional problems are becoming less simple all the time.*
But designers rarely confess their inability to solve them.
Instead, when a designer does not understand a problem clearly enough to find the order it really calls for,
he falls back on some arbitrarily chosen formal order.
The problem, because of its complexity, remains unsolved. "

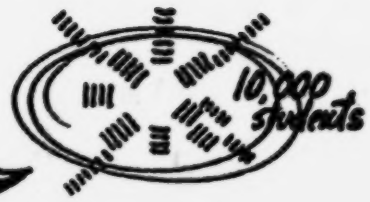
- Christopher Alexander, in "Notes on the Synthesis of Form"

THE NEED IS APPARENT:
BUILD TOWARD GOALS...
BUILD ON PHILOSOPHY.

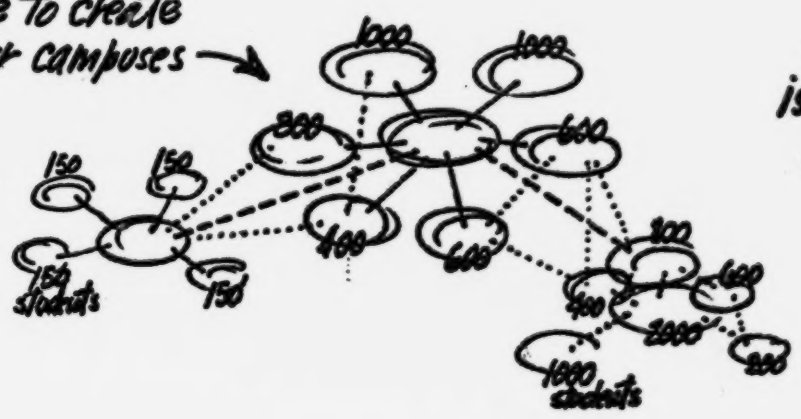
("We usually "build on techniques"...
– Bill Caudill

It is possible and proper to design and build
facilities for education
to achieve clearly stated goals.

for example, the institution may choose
to create a single large, impressive campus →



.. or it may choose to create
many smaller campuses →



... a philosophy
is the starting point.
... goals must be
clearly stated.

A note on growth –

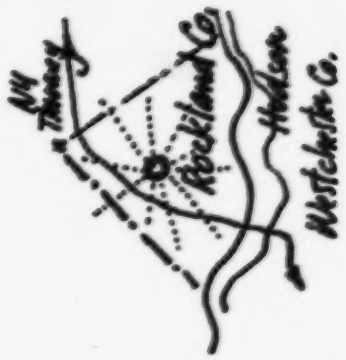
1) The birthrate is dropping. – Anthony Downs, demographer.
2) Some colleges & universities will get caught with too many facilities. – H. Gores

THE CAMPUS, I.E. -
THE CULTURAL-EDUCATIONAL CENTER
IS BECOMING THE COMMUNITY CENTER.

Whether a community college (with students from the immediate area)
or a liberal arts college (with students from the entire country)
or a large university (with students from the world)

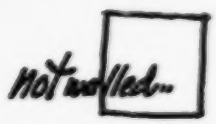
... the campus is the rallying place for the community
and is its cultural-educational center.

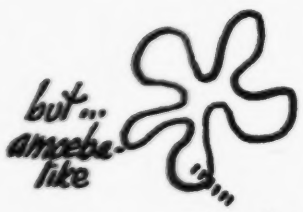
Examples:
Rockland County NY Community College
will be the cultural and educational center
for all Rockland County.



Knox, Kenyon, DePauw, Middlebury, Sarah Lawrence
and a thousand other colleges make their towns
college towns ... which are recognized as "good places to live."

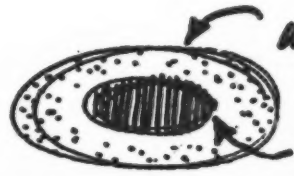
Harvard and M.I.T. are Cambridge;
Wisconsin and Madison are one; Newhaven = Yale;
Berkeley is a cultural center, and so is Palo Alto.





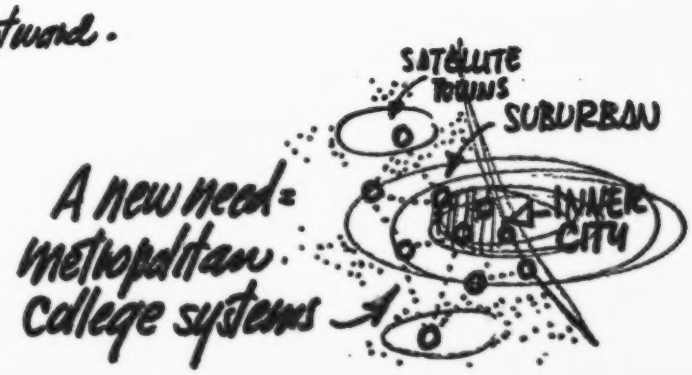
Stanford reaches out beyond the "campus".

THE URBAN CRISIS
AFFECTS EVERY INSTITUTION.



- Edwin Berry, Chicago Urban League

No college or university can escape ...
... from the conflicts of the inner city and the growing metro dichotomy →
... from the facts of poverty (the basic inner city problem..).
- John Lindsay
and the continued flight of business & industry outward.
... from the fact that our cities are worn out.



A new need = metropolitan college systems →

The college and university suddenly takes an active interest in its environment.

(Note the many new "centers for urban studies" established at universities.

(The University of Chicago took an active interest years ago, fought to rebuild its urban neighborhood.

The educational institution is the logical focus for urban renewal.

(small Detroit Inst. of Tech. proposes it be responsible for the 100 blocks around it!
- H. Loves

Note growing interest in an alternate to "urban renewal"...
"New Towns." Question = are they the new hope, or an "Escape to Utopia" leaving urban problems behind, unsolved?

The need = New Towns in the city...
Logical focus = the new community college!

THE CAMPUS, SOMETIMES, HAS GOTTEN TOO BIG-.. .. TOO ISOLATED.

"The tidy square of real estate" school of planning

"Project-itis" = ... designing projects without regard for the total neighborhood.

.. does this campus have a moat around it ... cutting it off from its community?

" Break down the isolation .. associated with universities "
- C. Price British architect

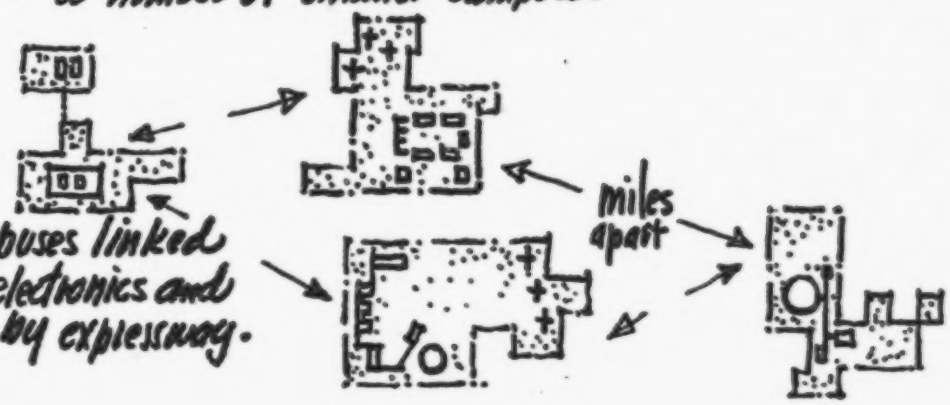
An alternate - let the campus permeate the community.

More perimeter =
= more opportunity for inter-action with the community especially other institutions
= more flexibility in land acquisition and ~ ..ity for growth & change.

More appropriate now = decentralization

The trend: centralization

another obvious alternate - ... a number of smaller campuses



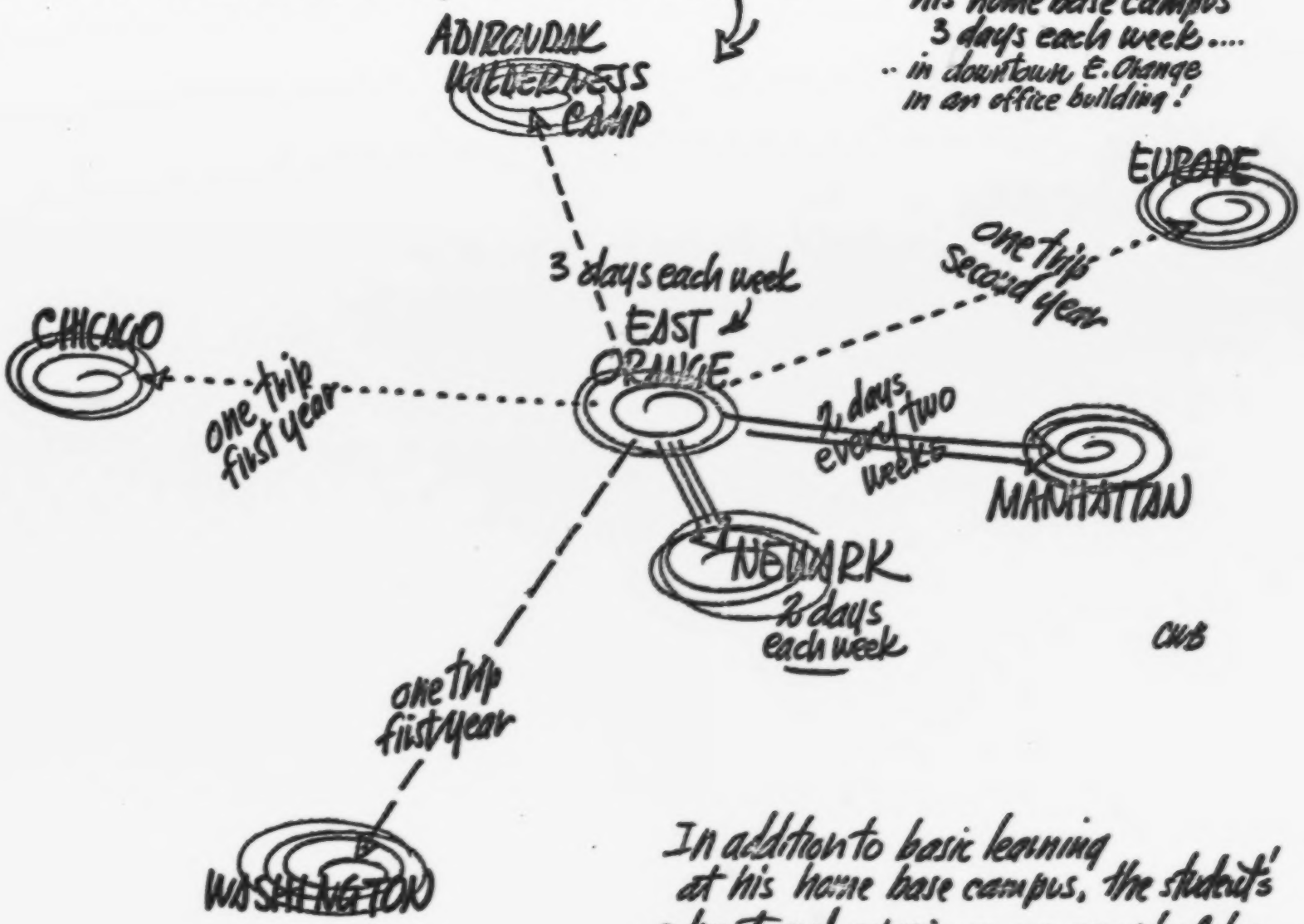
Campuses linked by electronics and by expressway.

THE MULTI-LOCATION COLLEGE —

... Why not?

One community college student's schedule =

(the student lives in E. Orange, NJ., goes to his home base campus 3 days each week .... .. in downtown E. Orange in an office building!



CWB

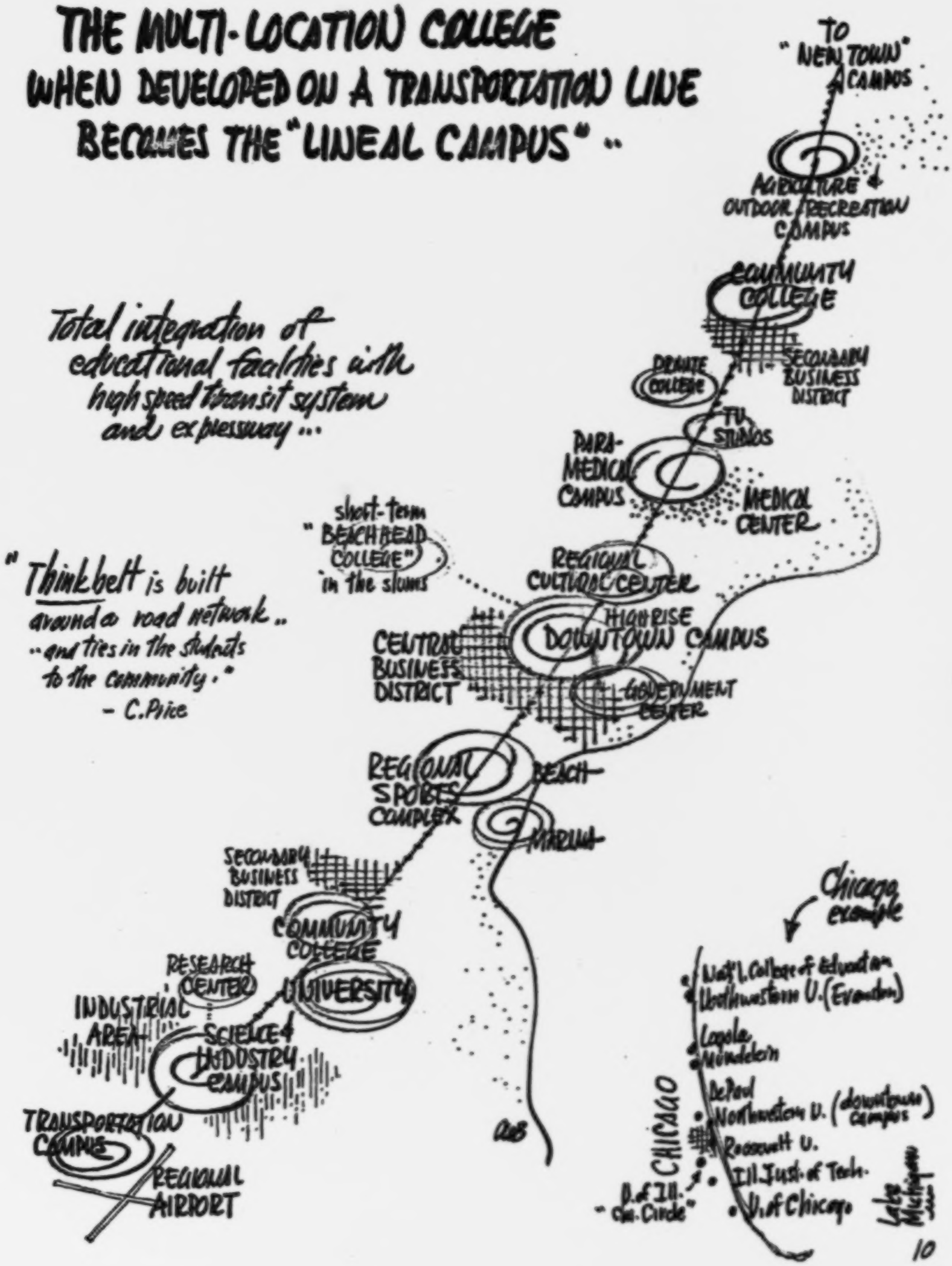
In addition to basic learning at his home base campus, the student's educational experiences are enriched by trips to six other locations =

- NEWARK COMMUNITY COLLEGE, for special technical labs, swimming team, broader social contacts.
- MANHATTAN, for cultural and business experiences.
- WASHINGTON, for government, associations, embassy visit, etc.
- ADIRONDAK WILDERNESS CAMP, for skiing, camping, hiking.
- CHICAGO for an exchange program with CHICAGO CITY COLLEGE.
- EUROPE — at the end of the two-year program.

THE MULTI-LOCATION COLLEGE WHEN DEVELOPED ON A TRANSPORTATION LINE BECOMES THE "LINEAL CAMPUS" ..

Total integration of educational facilities with high speed transit system and expressway ...

" *Thinkbelt* is built around a road network .. .. and ties in the students to the community."
- C. Price



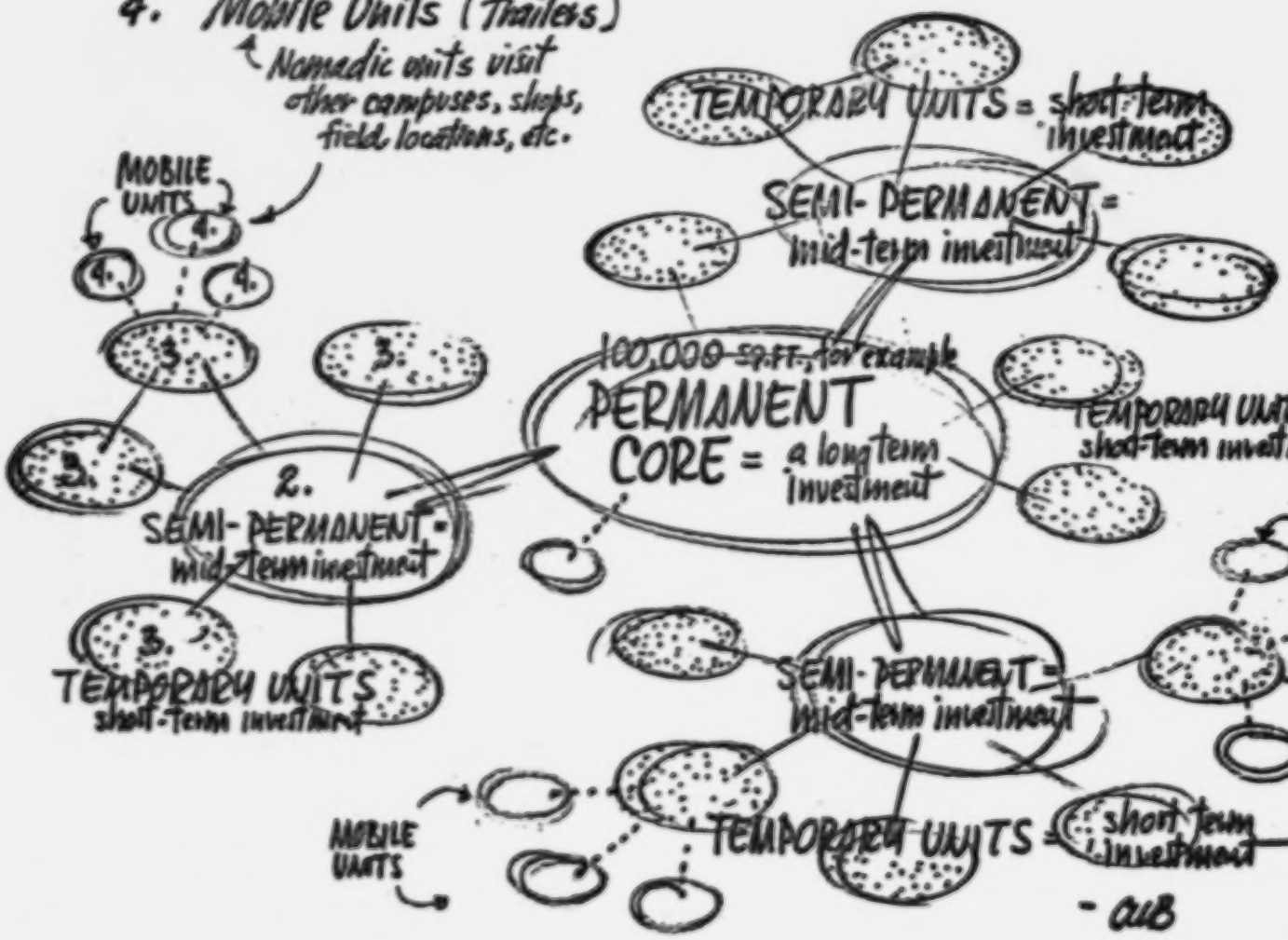
NON-PERMANENT STRUCTURES ARE USEFUL TO EDUCATION, TOO.

The future dynamic campus? (contrast the static campus:

Cluster =

1. Permanent Core (100 year investment; cost = $40 per sq. ft.)
2. Semi-permanent Units (15 year investment; cost = $20 per sq. ft.)
3. Temporary Units (less than 5 year investment; cost = $10 per sq. ft.)
4. Mobile Units (trailers)

↑ Nomadic units visit other campuses, shops, field locations, etc.



Francis McKeag, Chicago Schools =

- Chicago has 1000 mobile units, "our flexibility factor", and "a saving grace."
- "We need another kind of school building .... a semi-permanent unit that might stay 15 years ... "
- "It would be to our advantage to build ⅓ or ½ of a new school as a demountable structure."

Use temporary structures to allow experimentation, encourage innovation. "Almost everything can be studied .. in them. - C. Price.

The design challenge now .. This concept needs a system.!

"BUILD ZONES OF SPACE"

- Harold Gores, EFL

* **Committed Space and Uncommitted Space**

  Inflexible, but with Character..
  .. as a theater, or swimming pool.

  Flexible, changeable, convertible, but purposely lacking permanent character,
  .. as open loft for unknown future enterprises.
  (best USA example is Texas Instruments plant in Dallas.)

* **Permanent Space and Temporary Space**

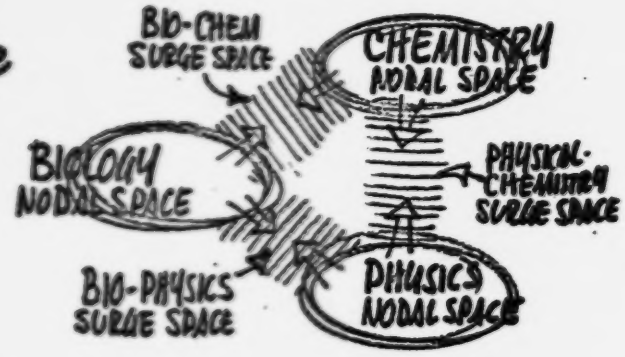
  .. as the boiler room..
  .. or the Rare Books Library at Yale.

  science and engineering need short-term space for experiments.

* **Surge Space and Nodal Space**

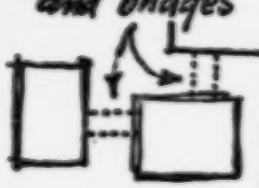
  ... connecting "nodes" to allow programs to expand — and to encourage multi-discipline work.

  .. committed to specific needs.



* **Linked Space and Continuous Space**

  .. using tunnels and bridges

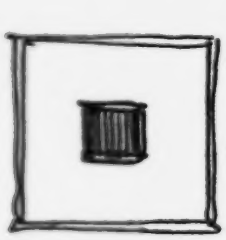


examples:
Boston Univ. library-union.
Lorain Co. Com. College
W. of Cleveland

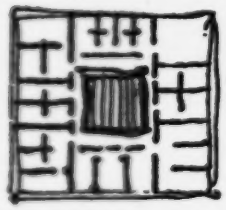
... as opposed to separate buildings.
(best N. American example is Scarborough College, E. of Toronto.)

THE MODERN OFFICE BUILDING SHOWS THE WAY ...

The office building, with a committed core, and open uncommitted space around it...
.. accepts all unknown future tenants gracefully ...



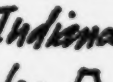
core & shell are long-term investments.



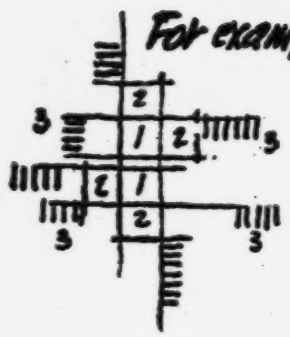
partitions are short-term investments.

WHITHER SYSTEMS ?

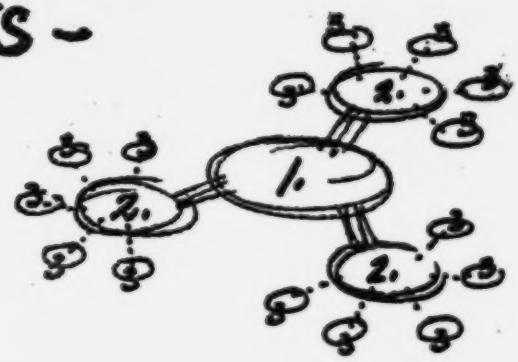
- CONSTRUCTION SYSTEMS :

Current Examples: URBS (Univ. Res. Bldg. Systems) for U. of Calif.
ABS (Academic Bldg. Systems) for Indiana
Illinois Valley Com. College (one module =  three = ... plus utilities) etc. contains =

NEXT = BROADER CONCEPTS -



For example ... A system for related, interconnected, compatible
1. Permanent
2. Semi-permanent, and
3. Temporary Units

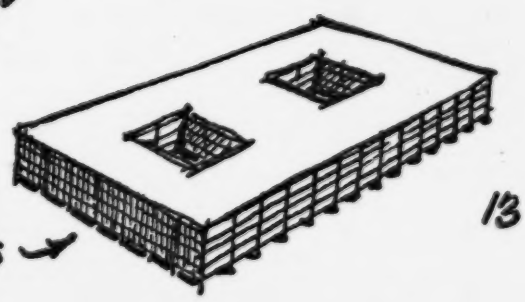


Q. START WITH BUILDING SYSTEM ...
... OR START WITH LEARNING SYSTEM ?

Learning System = ... An alternate to "building on technique" ...

A. Begin planning with one student and a philosophy and stated goals.
B. Plan facilities req'd. for the individual (whether at a "campus" ... or at home!)
C. Plan clusters of facilities req'd. for small & medium groups of students.
D. Expand planning to include large groups, specialized shared facilities
E. Involve the community, related institutions, library systems, transit, etc.

↑ This approach to design will generate complex relationships & forms ... and resulting structures probably will not look like this →



..to be continued ...